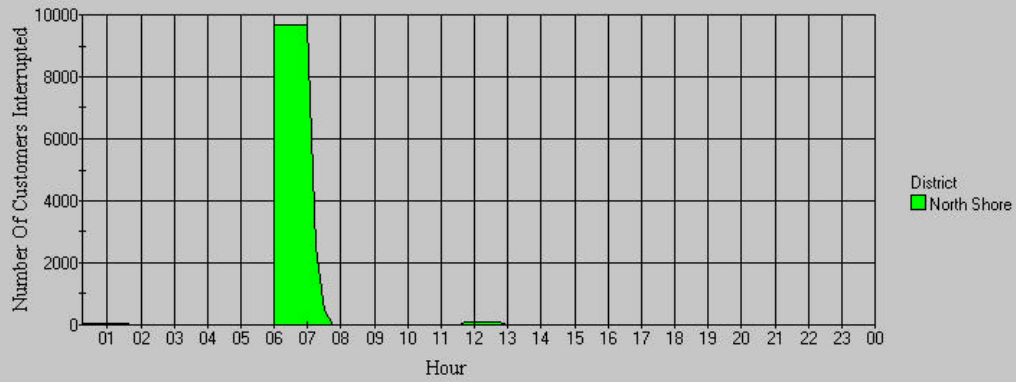




National Grid

National Grid, USA

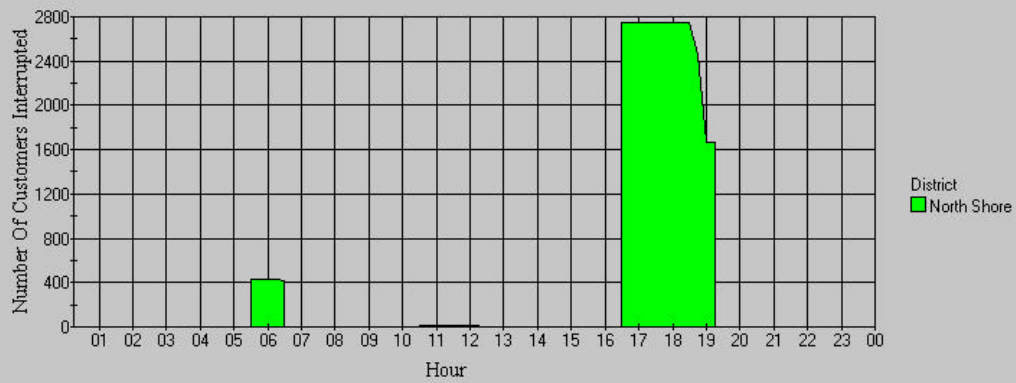
Number of Customers Without Power for Next 24 hours
July 5, 2002 00:01



National Grid

National Grid, USA

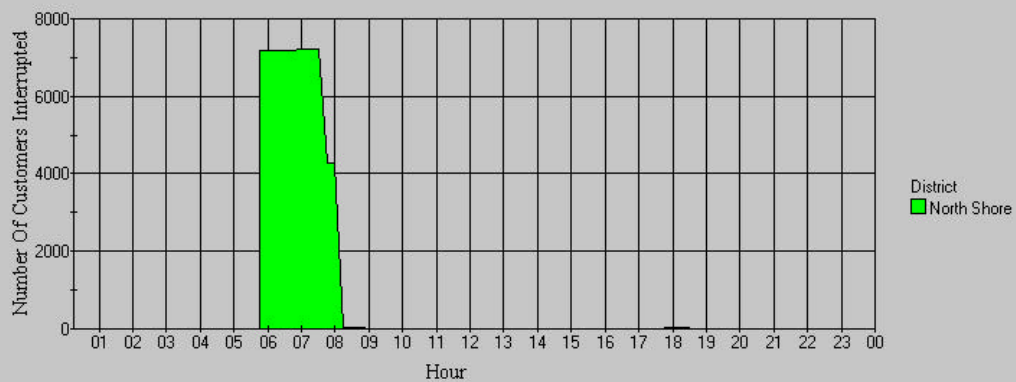
Number of Customers Without Power for Next 24 hours
July 6, 2002 00:01



National Grid

National Grid, USA

Number of Customers Without Power for Next 24 hours
July 7, 2002 00:01

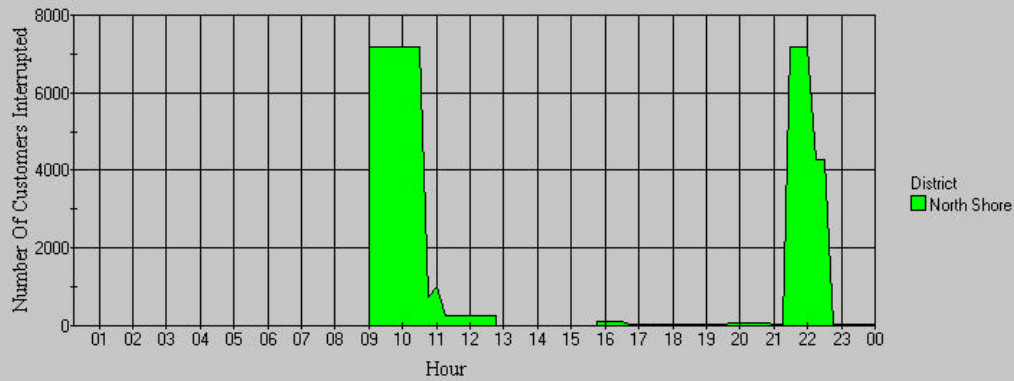




National Grid

National Grid, USA

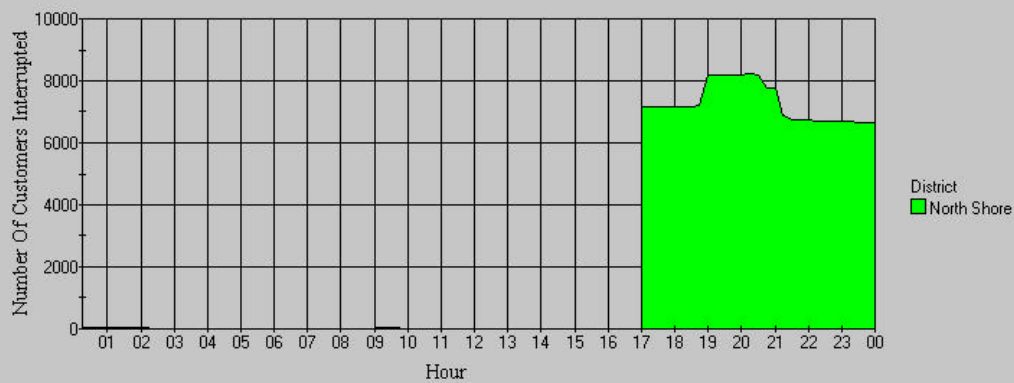
Number of Customers Without Power for Next 24 hours
July 8, 2002 00:01



National Grid

National Grid, USA

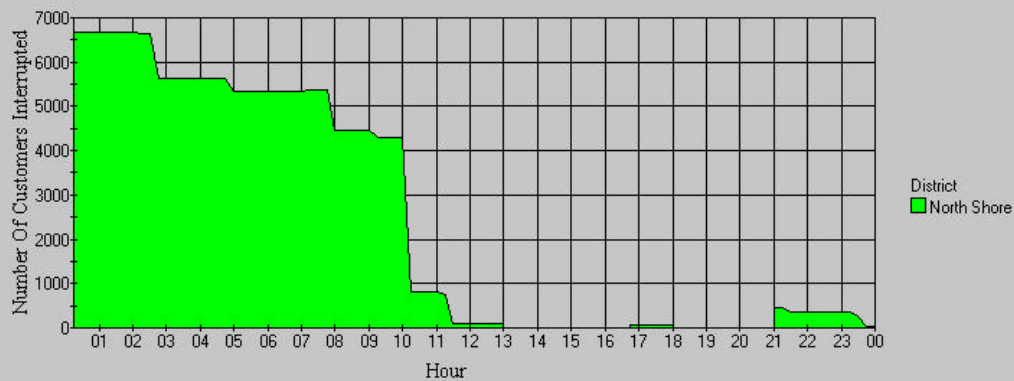
Number of Customers Without Power for Next 24 hours
July 9, 2002 00:01



National Grid

National Grid, USA

Number of Customers Without Power for Next 24 hours
July 10, 2002 00:01

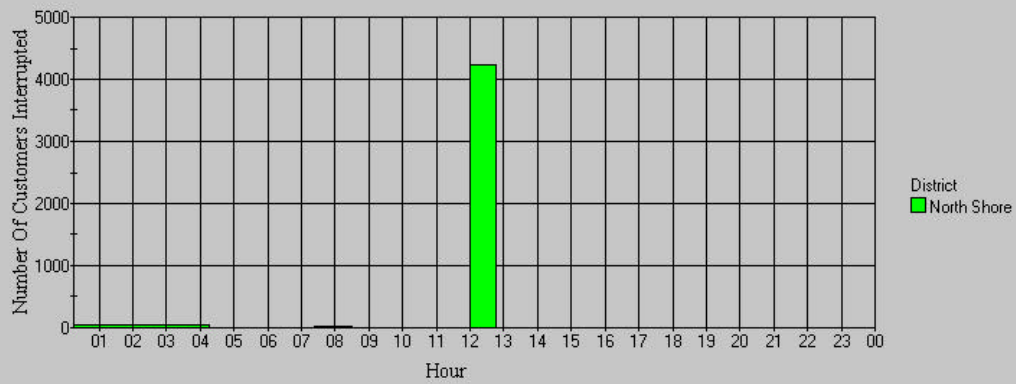




National Grid

National Grid, USA

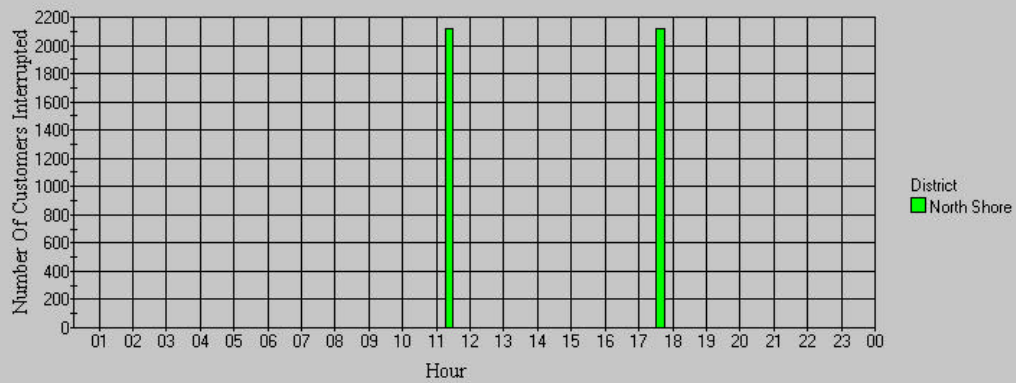
Number of Customers Without Power for Next 24 hours
July 11, 2002 00:01



National Grid

National Grid, USA

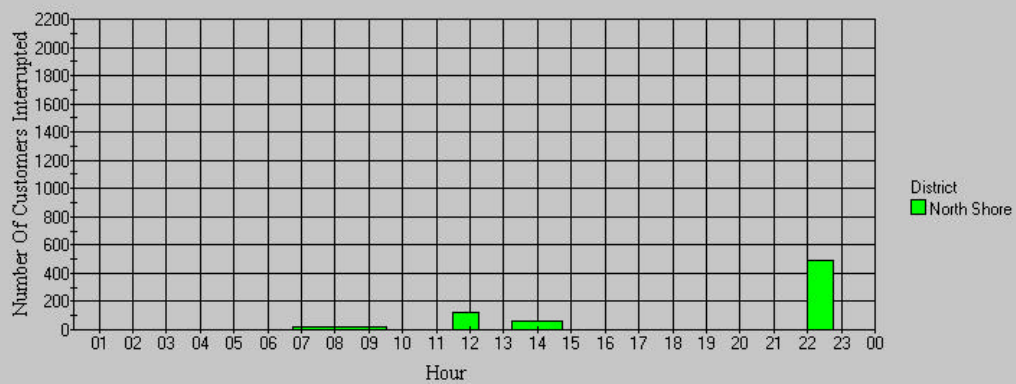
Number of Customers Without Power for Next 24 hours
July 15, 2002 00:01



National Grid

National Grid, USA

Number of Customers Without Power for Next 24 hours
July 16, 2002 00:01



Interruption Details for Event 4241132

| Event Id: 4241132 | | | District: North Shore | | | | | Distribution Type: Overhead | | | |
|---|------|---------|-----------------------|---------|--------------------|-------------------|------------------|-----------------------------|-------------------------------|----------------|--|
| Date: 07/05/2002 | | | Feeder Outage: Yes | | | | | | | | |
| Feeder Branch | Town | Street | Time Off | Time On | Duration Hrs. Min. | # Custs. Affected | Cust. Out. Hours | Rel. Min. Lost | Transformer Route/Pole/Suffix | Substation | |
| 64J2 | A | MEDFORD | 06:03 | 07:10 | 1 7 | 641 | 716 | 0.185 | -- | CODDING AVE 64 | |
| 64J4 | A | MEDFORD | 06:03 | 07:10 | 1 7 | 1051 | 1174 | 0.304 | -- | | |
| 9C1 | A | MEDFORD | 06:03 | 07:10 | 1 7 | 359 | 401 | 0.104 | -- | MEDFORD 9 | |
| 9C4 | A | MEDFORD | 06:03 | 07:10 | 1 7 | 246 | 275 | 0.071 | -- | | |
| 9C2 | A | MEDFORD | 06:03 | 07:10 | 1 7 | 228 | 255 | 0.066 | -- | | |
| 64J1 | A | MEDFORD | 06:03 | 07:10 | 1 7 | 361 | 403 | 0.104 | -- | CODDING AVE 64 | |
| 64J3 | A | MEDFORD | 06:03 | 07:10 | 1 7 | 1436 | 1604 | 0.415 | -- | | |
| 64J5 | A | MEDFORD | 06:03 | 07:10 | 1 7 | 746 | 833 | 0.216 | -- | | |
| 9C5 | A | MEDFORD | 06:03 | 07:10 | 1 7 | 107 | 119 | 0.031 | -- | MEDFORD 9 | |
| 9C6 | A | MEDFORD | 06:03 | 07:10 | 1 7 | 1106 | 1235 | 0.32 | -- | | |
| 9C7 | A | MEDFORD | 06:03 | 07:10 | 1 7 | 141 | 157 | 0.041 | -- | | |
| 11J1 | A | MEDFORD | 06:03 | 07:16 | 1 13 | 214 | 260 | 0.067 | -- | WELLINGTON 11 | |
| 11J2 | A | MALDEN | 06:03 | 07:23 | 1 20 | 1063 | 1417 | 0.367 | -- | | |
| 11J3 | A | MEDFORD | 06:03 | 07:16 | 1 13 | 624 | 759 | 0.197 | -- | WELLINGTON 11 | |
| 11J4 | A | MALDEN | 06:03 | 07:30 | 1 27 | 222 | 322 | 0.083 | -- | | |
| 11J4 | A | MEDFORD | 06:03 | 07:30 | 1 27 | 243 | 352 | 0.091 | -- | | |
| 11J13 | A | MEDFORD | 06:03 | 07:16 | 1 13 | 165 | 201 | 0.052 | -- | | |
| 9C3 | A | MEDFORD | 06:03 | 07:10 | 1 7 | 744 | 831 | 0.215 | -- | MEDFORD 9 | |
| Z2398 | A | MEDFORD | 06:03 | 07:05 | 1 2 | 1 | 1 | 0 | -- | | |
| Event Totals | | | | | | 9698 | 11315 | 2.931 | | | |
| Event Description: Outage was due to loss of 23kV supply cables that feed the three substations. UG cable faults on the 2333M and 2333X lines and a squirrel contact at Malden 5 on the #2 transformer appears to have occurred simultaneously. | | | | | | | | | Prepared By: Jason Small | | |
| <input checked="" type="checkbox"/> Protection Review Required | | | | | | | | | | | |
| Protection Operation Description: This caused multiple 23kV line outages, review required. | | | | | | | | | | | |
| Follow Up Action: Pending | | | | | | | | | | | |
| Follow Up By: | | | | | | | | | | | |
| Purpose/Repair Crew: Unintentional | | | | | | | | | | | |
| Initial Response Crew: Troubleman on duty from assigned area | | | | | | | | | | | |
| Cause: Unknown | | | | | | | | | | | |
| Weather Conditions: Extreme hot or cold (<10 or >90 degrees) | | | | | | | | | | | |
| Wind/Storm Conditions: Calm to light wind (0-12 mph) | | | | | | | | | | | |
| Voltage: | | | | | | | | | | | |
| Classification: Transmission or distribution supply - below 69 KV | | | | | | | | | | | |
| Protective Device: Transmission or distribution supply switching device | | | | | | | | | | | |
| Failed Component: Unknown or no failure | | | | | | | | | | | |
| Overhead Construction: Does not apply | | | | | | | | | | | |
| Conductor Description: | | | | | | | | | | | |

| | |
|--|--|
| Conductor Size: | |
| Restoration Steps By: Jason Small DPU/PUC/DTE By: | Analysis Data By: Erin J. Mackenzie Protection Followup By: |

Interruption Details for Event 4247515

| Event Id: 4247515 Date: 07/07/2002 | | | District: North Shore Feeder Outage: Yes | | | | Distribution Type: Overhead | | | | |
|---|------|--------------------------|---|---------|--------------------|---|-----------------------------|----------------|-------------------------------|----------------|--|
| Feeder Branch | Town | Street | Time Off | Time On | Duration Hrs. Min. | # Custs. Affected | Cust. Out. Hours | Rel. Min. Lost | Transformer Route/Pole/Suffix | Substation | |
| 9C1 | A | MEDFORD | 05:51 | 07:44 | 1 53 | 359 | 676 | 0.175 | -- | MEDFORD 9 | |
| 9C5 | A | MEDFORD | 05:51 | 07:44 | 1 53 | 107 | 202 | 0.052 | -- | | |
| 9C6 | A | MEDFORD | 05:51 | 07:44 | 1 53 | 1106 | 2083 | 0.54 | -- | | |
| 9C7 | A | MEDFORD | 05:51 | 07:44 | 1 53 | 141 | 266 | 0.069 | -- | | |
| 64J1 | A | MEDFORD | 05:51 | 08:10 | 2 19 | 361 | 836 | 0.217 | -- | CODDING AVE 64 | |
| 64J2 | A | MEDFORD | 05:51 | 08:10 | 2 19 | 641 | 1485 | 0.385 | -- | | |
| 64J3 | A | MEDFORD | 05:51 | 08:10 | 2 19 | 1436 | 3327 | 0.862 | -- | | |
| 64J4 | A | MEDFORD | 05:51 | 08:10 | 2 19 | 1051 | 2435 | 0.631 | -- | | |
| 64J5 | A | MEDFORD | 05:51 | 08:10 | 2 19 | 746 | 1728 | 0.448 | -- | MEDFORD 9 | |
| Z2398 | A | MEDFORD RR-FELLSWAY HGLN | 05:51 | 08:16 | 2 25 | 1 | 2 | 0.001 | 0754-0013-00 | | |
| Z2398 | A | MEDFORD BOSTON AVE | 05:51 | 09:31 | 3 40 | 0 | 0 | 0 | 0052-0014-01 | | |
| 9C3 | A | MEDFORD | 05:51 | 07:44 | 1 53 | 744 | 1401 | 0.363 | -- | | |
| 9C2 | A | MEDFORD | 05:51 | 07:44 | 1 53 | 228 | 429 | 0.111 | -- | MEDFORD 9 | |
| 9C4 | A | MEDFORD | 05:51 | 07:44 | 1 53 | 246 | 463 | 0.12 | -- | | |
| Event Totals | | | | | | 7167 | 15334 | 3.973 | | | |
| Event Description: CABLE FAILURE ON THE 2398 CIR.UG COMPLETED WORK ON THE 2333 CIR AND RE-ENERGIZED, TO PICK UP THE CUSTOMERS.THE FAULT ON THE 2398 WAS AT GIBSON ST AT THE STEEL PLANT IN MEDFORD. Prepared By: John P. Jankowski | | | | | | | | | | | |
| Purpose/Repair Crew: Unintentional Initial Response Crew: Supervisor Cause: Deterioration Weather Conditions: Clear / cloudy Wind/Storm Conditions: Calm to light wind (0-12 mph) Voltage: Classification: Transmission or distribution supply - below 69 KV Protective Device: Transmission or distribution supply switching Failed Component: Cable - XLPE - PE Overhead Does not apply Conductor Description: Conductor Size: | | | | | | | | | | | |
| Restoration Steps | | John P. DPU/PUC/DTE By: | | | | Analysis Data By: Ronald M. Protection Followup | | | | | |

Interruption Details for Event 4250876

| Event Id: 4250876 | | | District: North Shore | | | | | | | | |
|---|------|---------------------|-----------------------|---------|--------------------|-----------------------------|------------------|----------------|-------------------------------|----------------|--|
| Date: 07/08/2002 | | | Feeder Outage: Yes | | | | | | Distribution Type: Overhead | | |
| Feeder Branch | Town | Street | Time Off | Time On | Duration Hrs. Min. | # Custs. Affected | Cust. Out. Hours | Rel. Min. Lost | Transformer Route/Pole/Suffix | Substation | |
| 9C1 | A | MEDFORD | 09:14 | 10:37 | 1 23 | 359 | 497 | 0.129 | -- | MEDFORD 9 | |
| 9C2 | A | MEDFORD | 09:14 | 10:37 | 1 23 | 228 | 315 | 0.082 | -- | | |
| 9C4 | A | MEDFORD | 09:14 | 10:37 | 1 23 | 246 | 340 | 0.088 | -- | | |
| 9C5 | A | MEDFORD | 09:14 | 10:37 | 1 23 | 107 | 148 | 0.038 | -- | | |
| 9C6 | A | MEDFORD | 09:14 | 10:37 | 1 23 | 1106 | 1530 | 0.396 | -- | | |
| 9C7 | A | MEDFORD | 09:14 | 10:37 | 1 23 | 141 | 195 | 0.051 | -- | CODDING AVE 64 | |
| 64J1 | A | MEDFORD | 09:14 | 10:42 | 1 28 | 361 | 529 | 0.137 | -- | | |
| 64J2 | A | MEDFORD | 09:14 | 10:44 | 1 30 | 641 | 962 | 0.249 | -- | | |
| 64J3 | A | MEDFORD | 09:14 | 10:42 | 1 28 | 1436 | 2106 | 0.546 | -- | | |
| 64J4 | A | MEDFORD | 09:14 | 10:44 | 1 30 | 1051 | 1577 | 0.408 | -- | | |
| 64J5 | A | MEDFORD | 09:14 | 11:00 | 1 46 | 746 | 1318 | 0.341 | -- | MEDFORD 9 | |
| 9C3 | A | MEDFORD | 09:14 | 10:37 | 1 23 | 744 | 1029 | 0.267 | -- | | |
| Z2398 | A | MEDFORD | 09:14 | 10:37 | 1 23 | 1 | 1 | 0 | -- | | |
| Event Totals | | | | | | 7167 | 10547 | 2.733 | | | |
| Event Description: Burnt up 33-2 disconnect at Wellington #11 substation caused loss of 2333 circuit. 2333 was only supply to Medford #9 substation, Coddington #64 substation, Anheuser Busch & Tufts University because 2398 circuit was out of service for repairs. Restoration delayed due to inoperable 00-33 tie breaker at Wellington #11. | | | | | | | | | | | |
| Purpose/Repair Crew: Unintentional Initial Response Crew: Supervisor Cause: Deterioration Weather Conditions: Extreme hot or cold (<10 or >90 degrees) Wind/Storm Conditions: Calm to light wind (0-12 mph) Voltage: Classification: Substation Protective Device: Transmission or distribution supply switching Failed Component: Disconnect - open Overhead Does not apply Conductor Description: Conductor Size: | | | | | | | | | | | |
| Restoration Steps | | Ronald M. | | | | Analysis Data By: Ronald M. | | | | | |
| DPU/PUC/DTE By: | | Protection Followup | | | | | | | | | |

Interruption Details for Event 4258069

| Event Id: 4258069 Date: 07/09/2002 | | | District: North Shore Feeder Outage: Yes | | | Distribution Type: Underground | | | | |
|---|------|-----------------------|---|---------|--------------------|--------------------------------|------------------|---------------------------------|-------------------------------|----------------|
| Feeder Branch | Town | Street | Time Off | Time On | Duration Hrs. Min. | # Custs. Affected | Cust. Out. Hours | Rel. Min. Lost | Transformer Route/Pole/Suffix | Substation |
| 9C2 | A | MEDFORD | 17:07 | 07:45* | 14 38 | 228 | 3336 | 0.864 | -- | MEDFORD 9 |
| 9C3 | A | MEDFORD | 17:07 | 07:46* | 14 39 | 236 | 3457 | 0.896 | -- | |
| 9C4 | A | MEDFORD | 17:07 | 07:46* | 14 39 | 37 | 542 | 0.14 | -- | |
| 9C5 | A | MEDFORD | 17:07 | 07:48* | 14 41 | 107 | 1571 | 0.407 | -- | |
| 9C6 | A | MEDFORD | 17:07 | 07:49* | 14 42 | 205 | 3014 | 0.781 | -- | |
| 9C7 | A | MEDFORD | 17:07 | 07:49* | 14 42 | 85 | 1250 | 0.324 | -- | |
| 64J3 | A | MEDFORD | 17:07 | 10:01* | 16 54 | 1436 | 24268 | 6.287 | -- | CODDING AVE 64 |
| 64J4 | A | MEDFORD | 17:07 | 10:03* | 16 56 | 1051 | 17797 | 4.611 | -- | |
| 64J1 | A | MEDFORD | 17:07 | 10:10* | 17 3 | 361 | 6155 | 1.595 | -- | |
| 64J2 | A | MEDFORD | 17:07 | 10:12* | 17 5 | 641 | 10950 | 2.837 | -- | |
| 64J5 | A | MEDFORD | 17:07 | 11:29* | 18 22 | 651 | 11957 | 3.098 | -- | |
| 9C1 | B | MEDFORD WASHINGTON ST | 17:07 | 20:32 | 3 25 | 359 | 1227 | 0.318 | -- | MEDFORD 9 |
| 9C4 | A1 | MEDFORD BOYNTON ROAD | 17:07 | 20:28 | 3 21 | 28 | 94 | 0.024 | -- | |
| 9C4 | A | MEDFORD | 17:07 | 20:41 | 3 34 | 70 | 250 | 0.065 | 9201-0025-03 | |
| 9C4 | A | MEDFORD | 17:07 | 21:04 | 3 57 | 1 | 4 | 0.001 | 9201-0178-01 | |
| 9C4 | AB | MEDFORD | 17:07 | 21:22 | 4 15 | 94 | 400 | 0.103 | -- | |
| 9C4 | A | MEDFORD | 17:07 | 21:16 | 4 9 | 16 | 66 | 0.017 | 9203-0176-01 | |
| 9C6 | AA | MEDFORD SOUTH ST | 17:07 | 21:07 | 4 0 | 151 | 604 | 0.156 | -- | |
| 9C6 | C | MEDFORD COLLEGE AVE | 17:07 | 21:10 | 4 3 | 750 | 3038 | 0.787 | -- | |
| 9C7 | A | MEDFORD | 17:07 | 21:40 | 4 33 | 41 | 187 | 0.048 | 9201-0145-03 | |
| 9C7 | A | MEDFORD | 17:07 | 22:05 | 4 58 | 15 | 75 | 0.019 | 9201-0637-01 | |
| 64J5 | C | MEDFORD HANCOCK ST | 17:07 | 13:12* | 20 5 | 95 | 1908 | 0.494 | -- | CODDING AVE 64 |
| 9C3 | C | MEDFORD WATER ST | 17:07 | 04:48* | 11 41 | 224 | 2617 | 0.678 | -- | MEDFORD 9 |
| 9C3 | B | MEDFORD FOREST ST | 17:07 | 11:01* | 17 54 | 44 | 788 | 0.204 | 0207-0071-00 | |
| 9C3 | B | MEDFORD FOREST ST | 17:07 | 04:48* | 11 41 | 12 | 140 | 0.036 | 0207-0072-00 | |
| 9C3 | B | MEDFORD FOREST ST | 17:07 | 04:48* | 11 41 | 11 | 129 | 0.033 | 0207-0073-00 | |
| 9C3 | B | MEDFORD FOREST ST | 17:07 | 04:48* | 11 41 | 4 | 47 | 0.012 | 0207-0078-00 | |
| 9C3 | B | MEDFORD FOREST ST | 17:07 | 04:48* | 11 41 | 38 | 444 | 0.115 | 0207-0079-00 | |
| 9C3 | B | MEDFORD FOREST ST | 17:07 | 09:01* | 15 54 | 175 | 2783 | 0.721 | -- | |
| Z2398 | A | MEDFORD | 17:07 | 20:40* | 27 33 | 1 | 28 | 0.007 | -- | |
| Event Totals | | | | | | 7167 | 99122 | 25.68 | | |
| Event Description: When re-energizing the 2333M cable after repairs at the Anheuser Busch tap, the 2333, 2397, 2398 & 2400 circuit breakers opened at the Wellington substation. Medford #9, Coddington #64, Tufts and Anheuser Busch were without supply. Both the 2333M & 2398M cables from Wellington #11 to the Medford #9 substation were faulted. Subsequent investigation also revealed a fault on the 2398C cable in front of Medford #9. | | | | | | | | Prepared By: Michael Selvitella | | |

Interruption Details for Event 4252295

| Event Id: 4252295 | | | District: North Shore | | | | | | | | |
|---|------|---------|-----------------------|---------|--------------------|-----------------------------|------------------|----------------|-------------------------------|----------------|--|
| Date: 07/08/2002 | | | Feeder Outage: Yes | | | | | | Distribution Type: Overhead | | |
| Feeder Branch | Town | Street | Time Off | Time On | Duration Hrs. Min. | # Custs. Affected | Cust. Out. Hours | Rel. Min. Lost | Transformer Route/Pole/Suffix | Substation | |
| 9C1 | A | MEDFORD | 21:30 | 22:11 | 0 41 | 359 | 245 | 0.064 | -- | MEDFORD 9 | |
| 9C2 | A | MEDFORD | 21:30 | 22:11 | 0 41 | 228 | 156 | 0.04 | -- | | |
| 9C4 | A | MEDFORD | 21:30 | 22:10 | 0 40 | 246 | 164 | 0.042 | -- | | |
| 9C5 | A | MEDFORD | 21:30 | 22:09 | 0 39 | 107 | 70 | 0.018 | -- | | |
| 9C6 | A | MEDFORD | 21:30 | 22:09 | 0 39 | 1106 | 719 | 0.186 | -- | | |
| 9C7 | A | MEDFORD | 21:30 | 22:10 | 0 40 | 141 | 94 | 0.024 | -- | CODDING AVE 64 | |
| 64J2 | A | MEDFORD | 21:30 | 22:41 | 1 11 | 641 | 759 | 0.197 | -- | | |
| 64J4 | A | MEDFORD | 21:30 | 22:42 | 1 12 | 1051 | 1261 | 0.327 | -- | | |
| 64J5 | A | MEDFORD | 21:30 | 22:42 | 1 12 | 746 | 895 | 0.232 | -- | | |
| 64J1 | A | MEDFORD | 21:30 | 22:42 | 1 12 | 361 | 433 | 0.112 | -- | | |
| 64J3 | A | MEDFORD | 21:30 | 22:42 | 1 12 | 1436 | 1723 | 0.446 | -- | MEDFORD 9 | |
| 9C3 | A | MEDFORD | 21:30 | 22:10 | 0 40 | 744 | 496 | 0.129 | -- | | |
| Z2398 | A | MEDFORD | 21:30 | 22:23 | 0 53 | 1 | 1 | 0 | -- | | |
| Event Totals | | | | | | 7167 | 7016 | 1.818 | | | |
| Event Description: 2333 CABLE FAILED DURING THE SWITCHING PROCEDURE TO RESTORE THE 2398 CABLE BACK INTO SERVICE. THIS CAUSED THE LOSS OF SUPPLY TO MEDFORD #9 AND CODDING #64, TUFTS UNIVERSITY ANHEUSER BUSCH. | | | | | | | | | Prepared By: Andrew Hadden | | |
| Purpose/Repair Crew: Unintentional Initial Response Crew: Crew on duty from assigned area Cause: Deterioration Weather Conditions: Extreme hot or cold (<10 or >90 degrees) Wind/Storm Conditions: Calm to light wind (0-12 mph) Voltage: Classification: Transmission or distribution supply - below 69 KV Protective Device: Transmission or distribution supply switching Failed Component: Cable - XLPE - PE Overhead Does not apply Conductor Description: Conductor Size: | | | | | | | | | | | |
| Restoration Steps | | | Andrew | | | Analysis Data By: Ronald M. | | | | | |
| DPU/PUC/DTE By: | | | Protection Followup | | | | | | | | |

At Medford #9 the 2398M cable was removed and the 2314W cable was tapped and installed at the 98-4 disconnects. The Medford 4kV feeders were then restored, after loads on the 2314W cable settled the feeders at Coddington #64 were picked up. Some distribution switching was performed that tied to the West Medford #17 substation and a set of 167kVA stepdowns were installed on the 37W5 to supply Forest Street. The failure on the 2333M was located in the "C phase" transition joint in the second splicing pit off Middlesex Avenue. Tufts University was restored in two steps, the #1 transformer was picked up at 20:32 and the #2 transformer at 20:45 (7/10). Due to customer modifications required to disconnect from generation, Anheuser Busch requested to be re-energized at 04:10 (7/11). Two faults were located on the 2398 cable, one joint failure 150 feet on the Medford side of the Fellsway (MWRA Building). The second failure was located in front of 5 Lauriet Place near route 93.

☒ Protection Review Required

Protection Operation

Follow Up Action: Pending

Follow Up By:

* Restoration step spanned several days.

Purpose/Repair Crew: Unintentional

Initial Response Crew: Crew on duty from assigned area

Cause: Insulation failure - cable

Weather Conditions: Clear / cloudy

Wind/Storm Conditions: Calm to light wind (0-12 mph)

Voltage:

Classification: Transmission or distribution supply - below 69 KV

Protective Device: Transmission or distribution supply switching

Failed Component: Cable - XLPE - PE

Overhead Does not apply

Conductor Description:

Conductor Size:

Restoration Steps Michael

DPU/PUC/DTE By:

Analysis Data By: Bert J.

Protection Followup

Interruption Details for Event 4261297

| Event Id: 4261297 | | | District: North Shore | | | | | | | | |
|---|------|---------|-----------------------|---------|--------------------|-------------------|------------------|--------------------------------|-------------------------------|----------------|--|
| Date: 07/11/2002 | | | Feeder Outage: Yes | | | | | Distribution Type: Underground | | | |
| Feeder Branch | Town | Street | Time Off | Time On | Duration Hrs. Min. | # Custs. Affected | Cust. Out. Hours | Rel. Min. Lost | Transformer Route/Pole/Suffix | Substation | |
| 64J1 | A | MEDFORD | 12:02 | 12:56 | 0 54 | 361 | 325 | 0.084 | -- | CODDING AVE 64 | |
| 64J2 | A | MEDFORD | 12:02 | 12:56 | 0 54 | 641 | 577 | 0.149 | -- | | |
| 64J3 | A | MEDFORD | 12:02 | 12:55 | 0 53 | 1436 | 1268 | 0.329 | -- | | |
| 64J4 | A | MEDFORD | 12:02 | 12:55 | 0 53 | 1051 | 928 | 0.241 | -- | | |
| 64J5 | A | MEDFORD | 12:02 | 12:57 | 0 55 | 746 | 684 | 0.177 | -- | | |
| Event Totals | | | | | | 4235 | 3782 | 0.98 | | | |
| Event Description: Loss of 2333M supply cable from Wellington #11 to Medford #9, service restored using 2314 cable. | | | | | | | | | Prepared By: John Castro | | |
| Purpose/Repair Crew: Unintentional Initial Response Crew: Supervisor Cause: Insulation failure - cable Weather Conditions: Clear / cloudy Wind/Storm Conditions: Calm to light wind (0-12 mph) Voltage: 23 KV 3 phase delta feeder Classification: Main line - direct buried Protective Device: Substation distribution feeder circuit breaker or Failed Component: Cable - XLPE - PE Overhead Does not apply Conductor Description: Does not apply Conductor Size: Does not apply | | | | | | | | | | | |
| Restoration Steps | | | John Castro | | | | | Analysis Data By: | | | |
| DPU/PUC/DTE By: | | | Protection Followup | | | | | | | | |

Interruption Details for Event 4272258

| | | | | | | | | | | | | |
|--|----|---------------------|-----------------------|----------|---------|--------------------|---------------------------|-----------------------------|------------------|----------------|-------------------------------|----------------|
| Event Id: 4272258 | | | District: North Shore | | | | | | | | | |
| Date: 07/15/2002 | | | Feeder Outage: Yes | | | | | Distribution Type: Overhead | | | | |
| Feeder Branch | | Town | Street | Time Off | Time On | Duration Hrs. Min. | | # Custs. Affected | Cust. Out. Hours | Rel. Min. Lost | Transformer Route/Pole/Suffix | Substation |
| 64J2 | A | MEDFORD | | 11:19 | 11:32 | 0 | 13 | 641 | 139 | 0.036 | -- | CODDING AVE 64 |
| 64J4 | A | MEDFORD | | 11:19 | 11:37 | 0 | 18 | 1051 | 315 | 0.082 | -- | |
| 64J3 | BA | MEDFORD BOW ST | | 11:19 | 11:32 | 0 | 13 | 426 | 92 | 0.024 | -- | |
| Event Totals | | | | | | | | 2118 | 546 | 0.142 | | |
| Event Description: Outage initially taken to put the #2 bus at Coddington Avenue onto Roll-On Generation. Generators kicked off line due to undervoltage relay. Problem was resolved and customers were restored. 64J3 component was a load transfer, not yet properly branched. | | | | | | | | | | | | |
| Purpose/Repair Crew: Correct local overload Initial Response Crew: Cause: Weather Conditions: Extreme hot or cold (<10 or >90 Wind/Storm Conditions: Calm to light wind (0-12 mph) Voltage: Classification: Protective Device: Failed Component: Overhead Conductor Description: Conductor Size: | | | | | | | | | | | | |
| Restoration Steps | | Jim Patterson | | | | | Analysis Data By: Bert J. | | | | | |
| DPU/PUC/DTE By: | | Protection Followup | | | | | | | | | | |

Interruption Details for Event 4274477

| | | | | | | | | | | | | |
|--|----|---------------------|-----------------------|----------|---------|--------------------|---------------------------|-----------------------------|------------------|--------------------------------|-------------------------------|----------------|
| Event Id: 4274477 | | | District: North Shore | | | | | | | | | |
| Date: 07/15/2002 | | | Feeder Outage: Yes | | | | | Distribution Type: Overhead | | | | |
| Feeder Branch | | Town | Street | Time Off | Time On | Duration Hrs. Min. | | # Custs. Affected | Cust. Out. Hours | Rel. Min. Lost | Transformer Route/Pole/Suffix | Substation |
| 64J2 | A | MEDFORD | | 17:42 | 17:49 | 0 | 7 | 641 | 75 | 0.019 | -- | CODDING AVE 64 |
| 64J4 | A | MEDFORD | | 17:42 | 17:53 | 0 | 11 | 1051 | 193 | 0.05 | -- | |
| 64J3 | BA | MEDFORD BOW ST | | 17:42 | 17:49 | 0 | 7 | 426 | 50 | 0.013 | -- | |
| Event Totals | | | | | | | | 2118 | 317 | 0.082 | | |
| Event Description: The generators feeding the #2 bus at Coddington Ave tripped off-line, taking out the 64J2 & 64J3 (64J3 was perm. load xfer to J2). Crews on-site restored generators and bus. | | | | | | | | | | Prepared By: Ronald M. Ambrose | | |
| Purpose/Repair Crew: Correct local overload Initial Response Crew: Cause: Weather Conditions: Extreme hot or cold (<10 or >90 Wind/Storm Conditions: Calm to light wind (0-12 mph) Voltage: Classification: Protective Device: Failed Component: Overhead Conductor Description: Conductor Size: | | | | | | | | | | | | |
| Restoration Steps | | Ronald M. | | | | | Analysis Data By: Bert J. | | | | | |
| DPU/PUC/DTE By: | | Protection Followup | | | | | | | | | | |

Interruption Details for Event 4274275

| Event Id: 4274275 | | | District: North Shore | | | | | | | | |
|--|------|---------------------|-----------------------|---------|--------------------|-------------------|---------------------------|-----------------------------|--------------------------------|----------------|--|
| Date: 07/16/2002 | | | Feeder Outage: Yes | | | | | Distribution Type: Overhead | | | |
| Feeder Branch | Town | Street | Time Off | Time On | Duration Hrs. Min. | # Custs. Affected | Cust. Out. Hours | Rel. Min. Lost | Transformer Route/Pole/Suffix | Substation | |
| 64J2 | A | MEDFORD | 04:40 | 04:41 | 0 1 | 641 | 11 | 0.003 | -- | CODDING AVE 64 | |
| 64J4 | A | MEDFORD | 04:40 | 04:41 | 0 1 | 1051 | 18 | 0.005 | -- | | |
| 64J3 | BA | MEDFORD BOW ST | 04:40 | 04:41 | 0 1 | 426 | 7 | 0.002 | -- | | |
| Event Totals | | | | | | 2118 | 35 | 0.009 | | | |
| Event Description: 64J2 and 64J4 circuits were being supplied by generators. Excitation problem caused generators to trip off line and resulted in outage to 64J2 and 64J4 circuits. | | | | | | | | | Prepared By: Ronald M. Ambrose | | |
| Purpose/Repair Crew: Correct local overload Initial Response Crew: Cause: Weather Conditions: Extreme hot or cold (<10 or >90 Wind/Storm Conditions: Calm to light wind (0-12 mph) Voltage: Classification: Protective Device: Failed Component: Overhead Conductor Description: Conductor Size: | | | | | | | | | | | |
| Restoration Steps | | Ronald M. | | | | | Analysis Data By: Bert J. | | | | |
| DPU/PUC/DTE By: | | Protection Followup | | | | | | | | | |

Interruption Details for Event 4274283

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|--|----|----------------|-----------------------|----------|---------|--------------------|---------------------------|-----------------------------|------------------|--------------------------------|-------------------------------|----------------|
| Event Id: 4274283 | | | District: North Shore | | | | | | | | | |
| Date: 07/16/2002 | | | Feeder Outage: Yes | | | | | Distribution Type: Overhead | | | | |
| Feeder Branch | | Town | Street | Time Off | Time On | Duration Hrs. Min. | | # Custs. Affected | Cust. Out. Hours | Rel. Min. Lost | Transformer Route/Pole/Suffix | Substation |
| 64J2 | A | MEDFORD | | 00:31 | 00:37 | 0 | 6 | 641 | 64 | 0.017 | -- | CODDING AVE 64 |
| 64J4 | A | MEDFORD | | 00:31 | 00:39 | 0 | 8 | 1051 | 140 | 0.036 | -- | |
| 64J3 | BA | MEDFORD BOW ST | | 00:31 | 00:37 | 0 | 6 | 426 | 43 | 0.011 | -- | |
| Event Totals | | | | | | | | 2118 | 247 | 0.064 | | |
| Event Description: 64J2 and 64J4 circuits were being supplied by generators. Voltage regulation problem caused generators to trip off line and resulted in outage to 64J2 and 64J4 circuits. | | | | | | | | | | Prepared By: Ronald M. Ambrose | | |
| Purpose/Repair Crew: Correct local overload Initial Response Crew: Cause: Weather Conditions: Extreme hot or cold (<10 or >90 Wind/Storm Conditions: Calm to light wind (0-12 mph) Voltage: Classification: Protective Device: Failed Component: Overhead Conductor Description: Conductor Size: | | | | | | | | | | | | |
| Restoration Steps | | Ronald M. | | | | | Analysis Data By: Bert J. | | | | | |
| DPU/PUC/DTE By: | | | | | | | Protection Followup | | | | | |